WHAT IS CLAIMED IS:

1. A detergent composition comprising a pectate lyase enzyme and a surfactant selected from the group consisting of a mid-chain branched anionic surfactant, an amine oxide and/or mixture thereof wherein the mid-chain branched anionic surfactant has the formula :

$$A^b - X - B$$

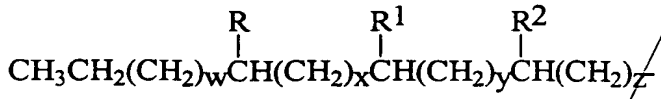
wherein:

(I) $A^b$ is a hydrophobic mid-chain branched alkyl moiety, having in total 9 to 22 carbons in the moiety, preferably from 12 to about 18, having: (1) a longest linear carbon chain attached to the - X - B moiety in the range of from 8 to 21 carbon atoms; (2) one or more $C_1$ - $C_3$ alkyl moieties branching from this longest linear carbon chain; (3) at least one of the branching alkyl moieties is attached directly to a carbon of the longest linear carbon chain at a position within the range of the position 2 carbon, counting from position 1 carbon (#1) which is attached to the - X - B moiety, to the position of the terminal carbon minus 2 carbons, (the (ω - 2) carbon); and (4) when more than one of these compounds is present, the average total number of carbon atoms in the $A^b$-X moieties in the above formula is within the range of greater than 11 to 20, preferably 14.5 to about 18, more preferably from about 15 to about 17;

(II) B is a hydrophilic moiety selected from sulfates, sulfonates, amine oxides, polyoxyalkylene, preferably polyoxyethylene and polyoxy-propylene, alkoxylated sulfates, polyhydroxy moieties, phosphate esters, glycerol sulfonates, polygluconates, polyphosphate esters, phosphonates, sulfosuccinates, sulfosuccaminates, polyalkoxylated carboxylates, glucamides, taurinates, sarcosinates, glycinates, isethionates, dialkanolamides, monoalkanolamides, monoalkanolamide sulfates, diglycolamides, diglycolamide sulfates, glycerol esters, glycerol ester sulfates, glycerol ethers, glycerol ether sulfates, polyglycerol ethers, polyglycerol ether sulfates, sorbitan esters, polyalkoxylated sorbitan esters, ammonioalkanesulfonates, amidopropyl betaines, alkylated quats, alkyated/polyhydroxyalkylated quats, alkylated quats, alkylated/polyhydroxylated oxypropyl quats, imidazolines, 2-yl-succinates, sulfonated alkyl esters, and sulfonated fatty acids; and

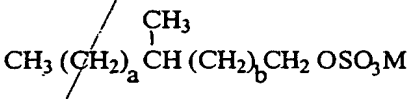
(III) X is selected from $-CH_2-$ and -C(O)-.

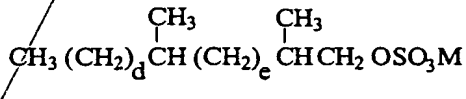
2. A detergent composition according to claim 1 wherein said mid-chain branched anionic surfactant is of the above formula wherein the $A^b$ moiety is a branched primary alkyl moiety having the formula:



wherein the total number of carbon atoms in the branched primary alkyl moiety of this formula, including the R, $R^1$, and $R^3$ branching, is from 13 to 19; R, $R^1$, and $R^2$ are each independently selected from hydrogen and $C_1$-$C_3$ alkyl, preferably methyl, provided R, $R^1$, and $R^2$ are not all hydrogen and, when z is 0, at least R or $R^1$ is not hydrogen; w is an integer from 0 to 13; x is an integer from 0 to 13; y is an integer from 0 to 13; z is an integer from 0 to 13; and w + x + y + z is from 7 to 13.

3. A detergent composition according to claims 1-2 wherein said mid-chain branched anionic surfactant has the formula:

(I)  , or

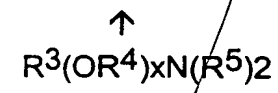
(II)  ,

or mixtures thereof; wherein M represents one or more cations; a, b, d, and e are integers, a+b is from 10 to 16, d+e is from 8 to 14 and wherein further when a + b = 10, a is an integer from 2 to 9 and b is an integer from 1 to 8; when a + b = 11, a is an integer from 2 to 10 and b is an integer from 1 to 9; when a + b = 12, a is an integer from 2 to 11 and b is an integer from 1 to 10; when a + b = 13, a is an integer from 2 to 12 and b is an integer from 1 to 11; when a + b = 14, a is an integer from 2 to 13 and b is an integer from 1 to 12; when a + b = 15, a is an integer from 2 to 14 and b is an integer from 1 to 13; when a + b = 16, a is an integer from 2 to 15 and b is an integer from 1 to 14; when d + e = 8, d is an integer from 2 to 7 and e is an integer from 1 to 6; when d + e = 9, d is an integer from 2 to 8 and e is an integer from 1 to 7; when d + e = 10, d is an integer from 2 to 9 and e is an integer from 1 to 8; when d + e = 11, d is an integer from 2 to 10 and e is an integer from 1 to 9;

when d + e = 12, d is an integer from 2 to 11 and e is an integer from 1 to 10; when d + e = 13, d is an integer from 2 to 12 and e is an integer from 1 to 11; when d + e = 14, d is an integer from 2 to 13 and e is an integer from 1 to 12; whereby, when more than one of these sulfate surfactants is present in the surfactant system, the average total number of carbon atoms in the branched primary alkyl moieties is from 11 to 20, preferably 14.5 to 18.

4. A detergent composition according to claims 1-3 wherein said mid-chain branched anionic surfactant has an $A^b$ - X moiety comprising from 11 to 20, preferably 16 to 18 carbon atoms and B is a sulfate group.

5. A detergent composition according to claims 1-4 wherein said amine oxide surfactant is of the formula



$$R^3(OR^4)xN(R^5)2$$

wherein $R^3$ is an alkyl, hydroxyalkyl, or alkyl phenyl group or mixtures thereof containing from about 8 to about 22 carbon atoms; $R^4$ is an alkylene or hydroxyalkylene group containing from about 2 to about 3 carbon atoms or mixtures thereof; x is from 0 to about 3; and each $R^5$ is an alkyl or hydroxyalkyl group containing from about 1 to about 3 carbon atoms or a polyethylene oxide group containing from about 1 to about 3 ethylene oxide groups. The $R^5$ groups can be attached to each other, e.g., through an oxygen or nitrogen atom, to form a ring structure.

6. A detergent composition according to claims 1-5 wherein said amine oxide surfactant is selected from $C_{10}$-$C_{18}$ alkyl dimethyl amine oxides; $C_8$-$C_{12}$ alkoxy ethyl dihydroxy ethyl amine oxides and/or mixtures thereof.

7. A detergent composition according to claims 1-6 wherein said amine oxide surfactant is comprised at a level of from 0.2% to 15%, preferably from 1% to 10%, more preferably less than 5% by weight of total composition.

8. A detergent composition according to claims 1-7 wherein said mid-chain branched anionic surfactant is comprised at a level of from 0.1% to 50%,

preferably from 0.5% to 40%, more preferably 1% to 35% by weight of the total composition.

9. A detergent composition according to any of the preceding claims wherein said pectate lyase is present at a level of from 0.0001% to 2%, preferably from 0.0005% to 0.5%, more preferably from 0.001% to 0.02% pure enzyme by weight of total composition.

10. A detergent composition according to any of the present invention further comprising a pectin lyase enzyme.

11. A method of cleaning a fabric, a dishware or hard surface with a detergent composition according to any of the preceding claims, for superior cleaning performance.